ENG

IDEO

325 Ecowatt

Installation Manual

Before manipulating this device, disconnect the electricity supply.
During normal operation, never stop the ventilation system.

General Information

High-performance heat recovery dwelling unit

1 Introduction

This manual is destined for use with the IDEO 325 Ecowatt high-performance heat recovery unit and its peripheral fittings (conduits, inlets, regulators…).
Its aim is to provide the maximum information and safety during installation, set-up and use.
As our products are in constant evolution, Soler & Palau reserves the right to modify this manual without prior notification.

1.2 Guarantee and civil liability

Guarantee

The IDEO 325 Ecowatt heat recovery unit is guaranteed for three years from the date of purchase. This guarantee includes free supply of spare parts.

This guarantee does not cover:

Assembly and disassembly expenses
Any breakdowns which according to Soler & Palau are due to poor installation, manipulation, negligence or accident.
Any breakdowns occurring after manipulation or repair by third parties without the authorisation of Soler & Palau.
To return a faulty part, the user should first contact the installer.

Civil liability

The IDEO 325 Ecowatt has been designed for ventilation systems that enable the renewal of air in private homes. Soler & Palau will not be held liable for damage produced by:
Misuse,
Normal wear and tear of components,
Non-observance of the instructions contained in this manual regarding safety, use and start-up,
The use of components not supplied by Soler & Palau,.

1.3 Safety

General safety rules

The IDEO 325 Ecowatt heat recovery unit has been designed to be incorporated into a ventilation system.
After installation, there should be no safety, health or environmental hazards, in compliance with EC regulations. This is also valid for the rest of the products used in the installation.

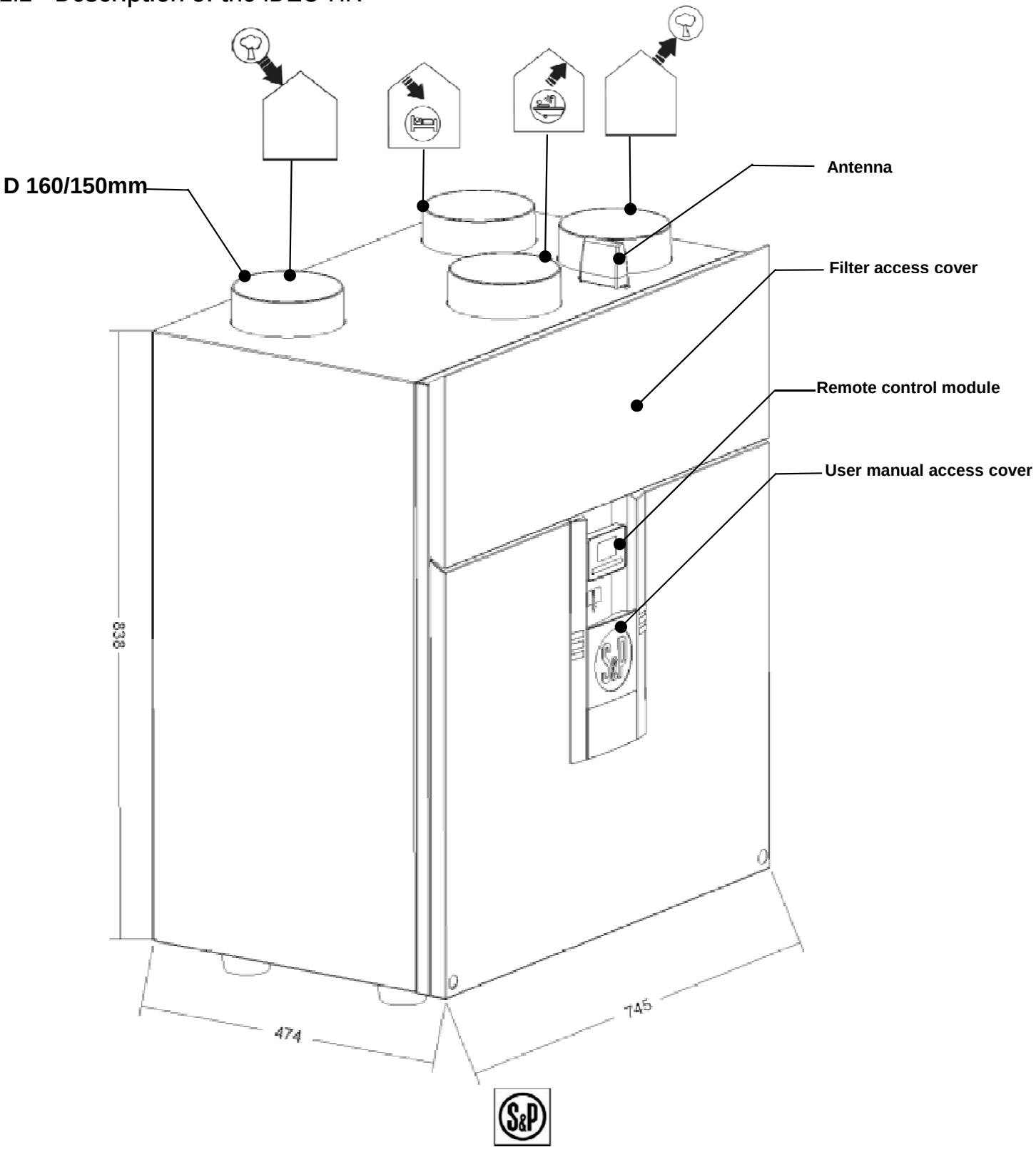
The following general instructions are important :
Follow the safety instructions to avoid any damage to the fans or harm to people
The technical characteristics of this manual must not be modified
The motor fans must not be modified
The motor fans must be connected to a single-phase 230 VAC / 50 Hz electricity supply
For the installation to be in compliance with EC regulations, the IDEO 325 Ecowatt heat recovery must be connected to the electricity supply in compliance with current regulations.
The device must be installed in such a manner that, in normal operating conditions, there is no risk of contact with moving and/or live parts.
The IDEO 325 Ecowatt complies with regulations on electrical devices.
Before any intervention on the device, always disconnect it from the electrical power supply.
Always use the right tools.
Only use the device for the purpose it was designed for.

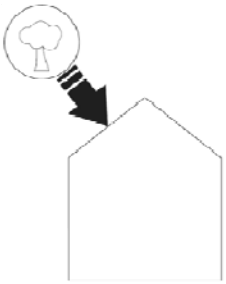
2 Technical information

2.1 General definition

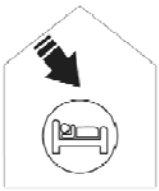
The IDEO 325 Ecowatt provides optimum ventilation for a room with a minimum loss of energy. It extracts air from spaces such as (Bathroom/s, WC, kitchen and washroom/s or shower room/s, and supplies fresh air into the main rooms (Living rooms, bedroom/s, office, …).
The fresh and extracted airflows are separated and filtered. Only the energy from the extracted air is transferred to the new fresh air introduced. Thanks to IDEO 325 Ecowatt 's high efficiency heat exchanger, performance can reach up to 95 %.
Condensation may occur at the moment of exchange, with the introduction of fresh air. This is recovered in a container for condensate, which should be connected to a waste water drain.
Thanks to its 100 % by-pass, the IDEO 325 Ecowatt enables you to cool your home in the summer.

2.2 Description of the IDEO-HR



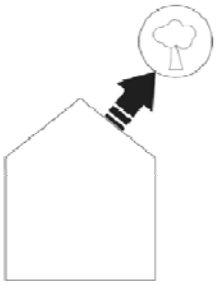


New fresh air inlet:
The conduit from the outside is connected here.
To avoid condensation, it is recommended to use insulated conduits.
The new fresh air inlet should be fitted sufficiently far from any source of strong contamination (Trees, combustion fumes, roads …).

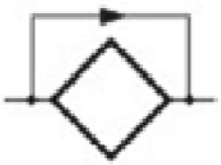


Supply fresh air into the building:
The conduit blowing fresh reheated air into the building is connected here.
To avoid thermal losses, it is recommended to use insulated tubes for moving the warmed air.

Extracting air from the building:
The building's air extraction conduit is connected here.
To avoid thermal losses and optimise the performance of the installation, it is recommended to use insulated tubes for moving the warm air.

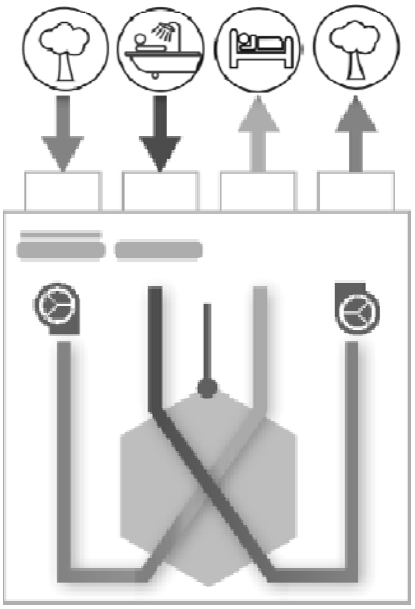


Discharge extracted air to outside:
The conduit for discharging the extracted air from the building to the outside is connected here.
This conduit must be hermetic and thermally insulated to avoid condensation both on the inside and outside.

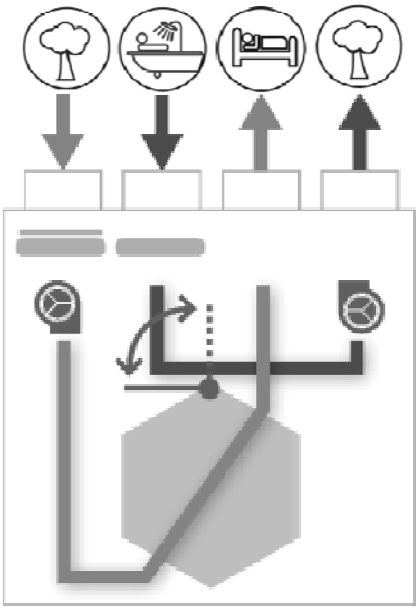


By-pass:
On having avoided the heat exchanger, the system of the by-pass 100 % of the IDEO 325 Ecowatt allows the introduction of the fresh air in the night without being warmed by the warm air accumulated in the house during the day. This system works automatically or can be forced manually (See chapter 2-6-b).

Without By-pass functioning

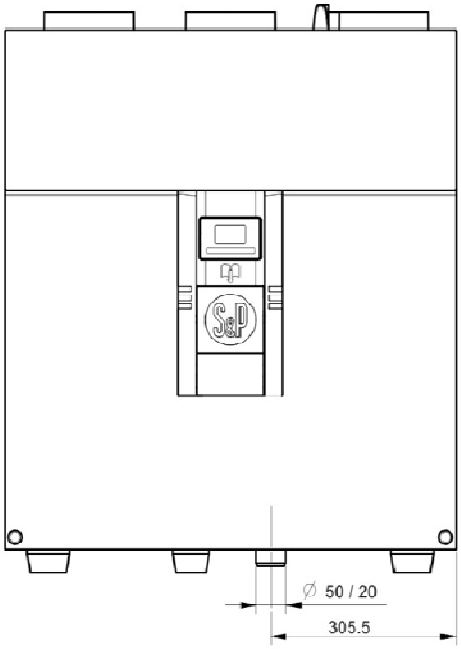


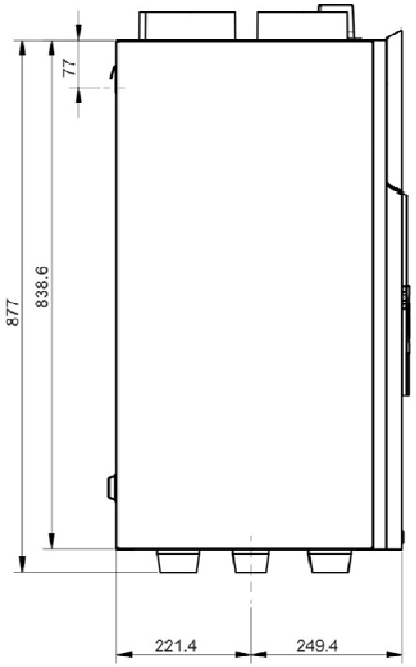
With By-pass functioning

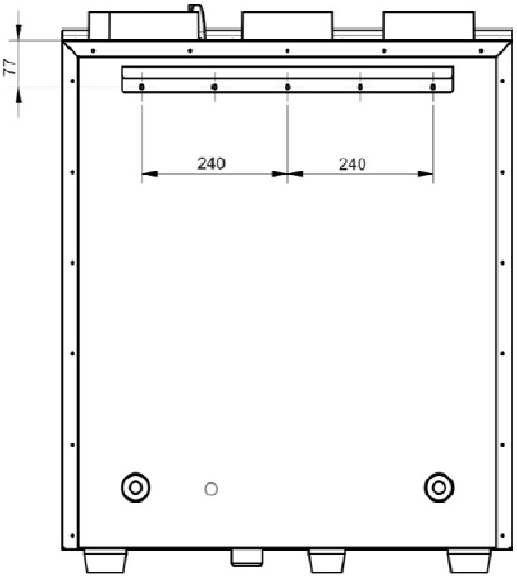


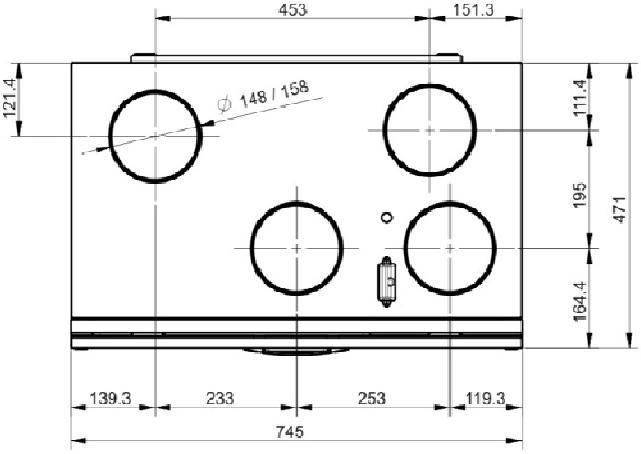
2.3 Dimensions

Central unit:



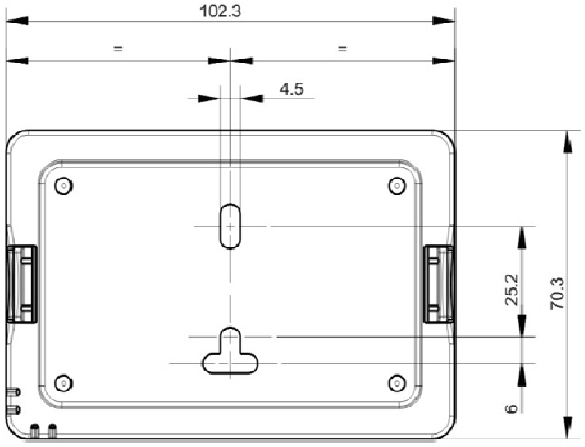




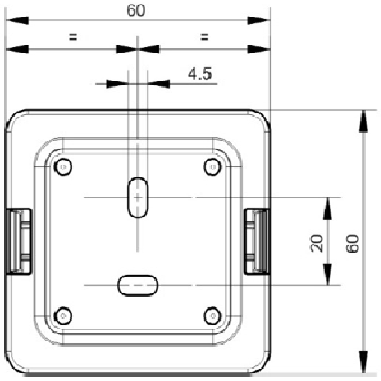


Weight: 51 Kg

Remote controls:



Programmable module

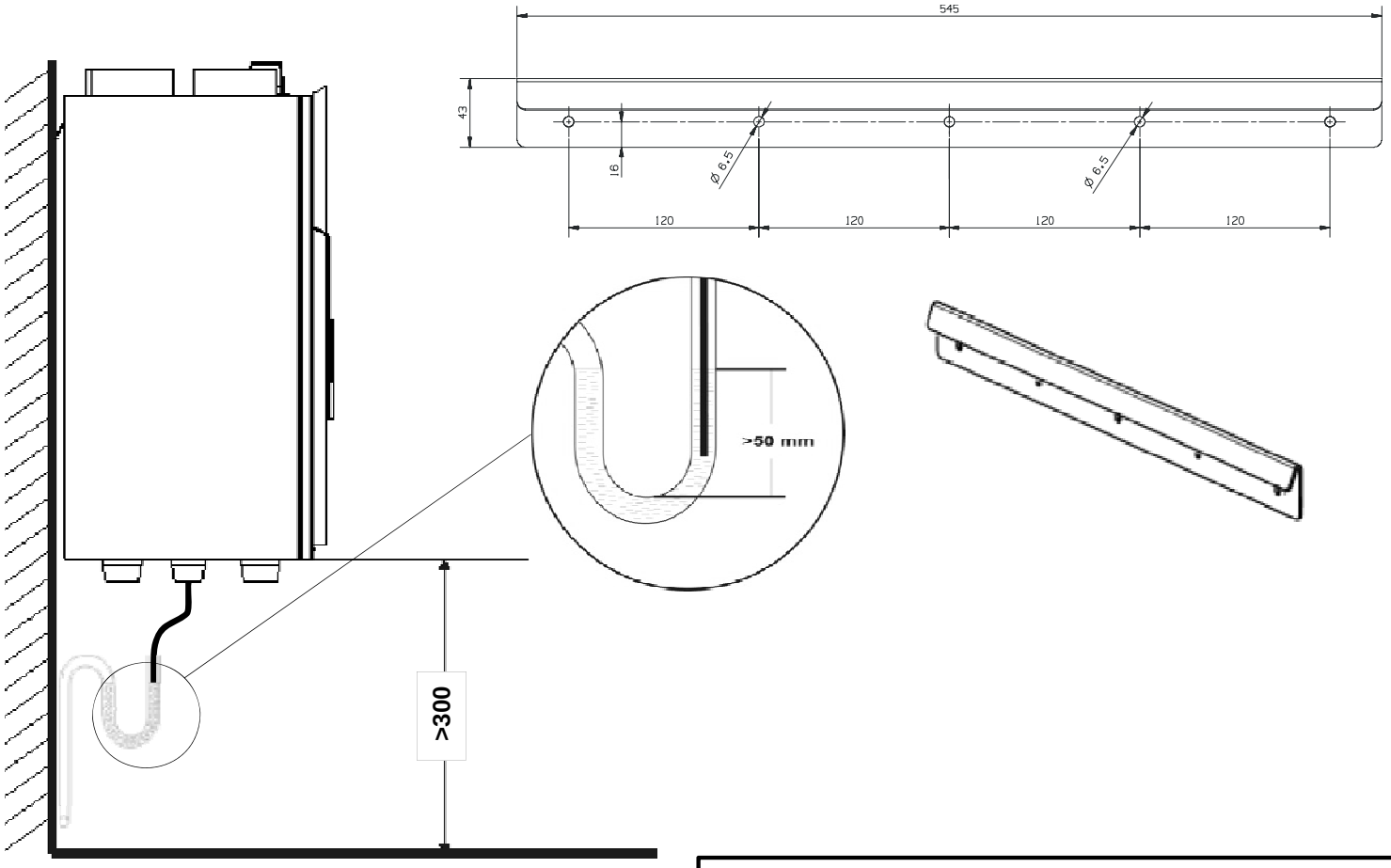


Kitchen boost

2.4 Placement

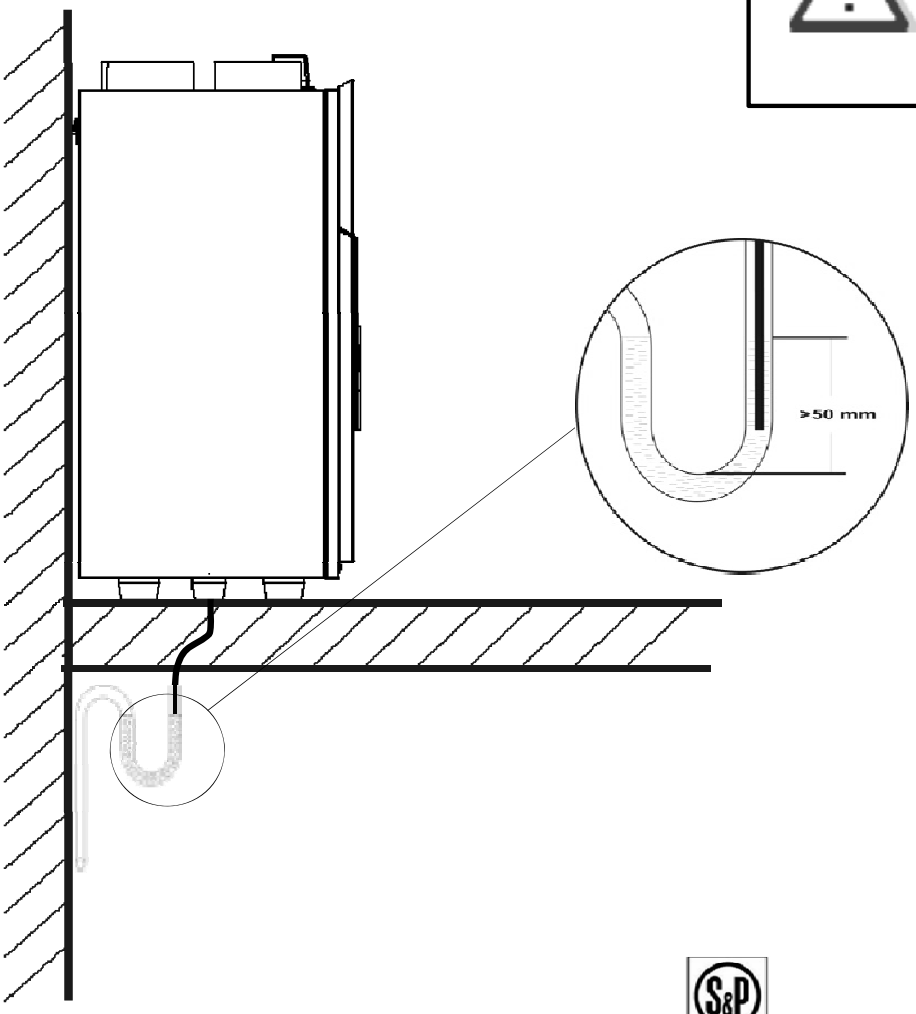
On a vertical wall:

Wall bracket

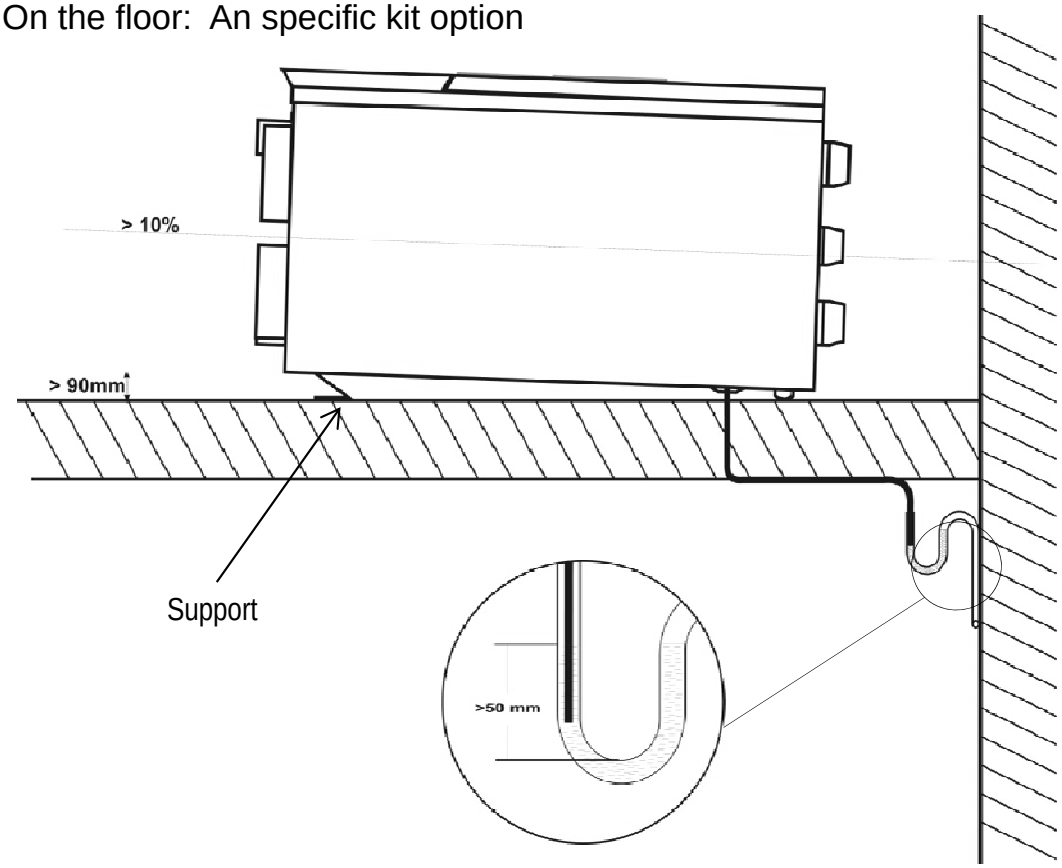


It is recommended to locate IDEO in heated house space. Otherwise it will be necessary to insulate the condensate drain pipework..

On the floor:



On the floor: An specific kit option



NEVER FIT THE IDEO ON THE CEILING.

It is recommended to locate IDEO in heated house space. Otherwise it will be necessary to insulate the condensate drain pipework.

Tube cover:

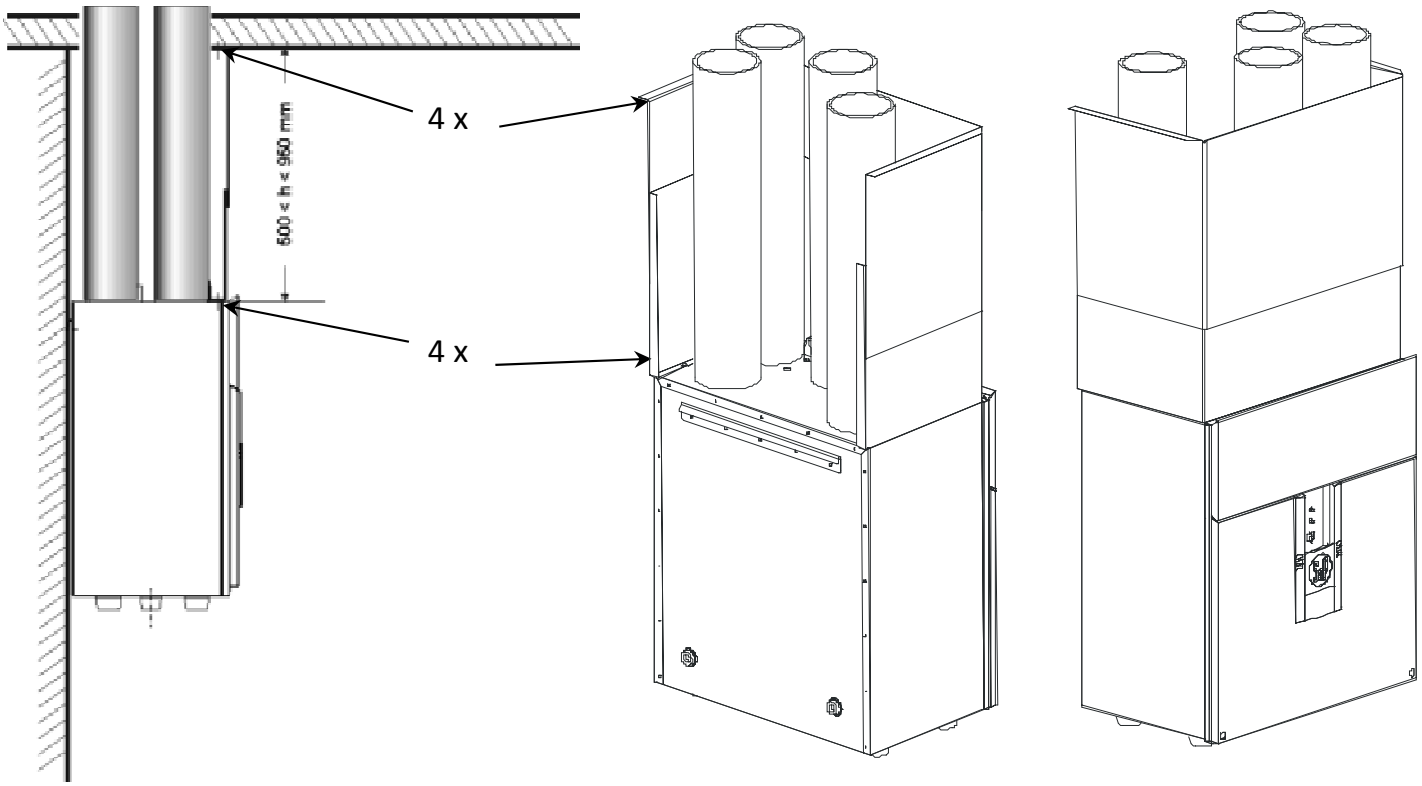


DIAGRAM OF STANDARD ASSEMBLY TYPE “DELIVERY”

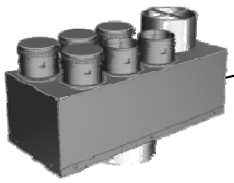
Outlet roof caps
CT 150

Kitchen

BDOP 125

BDOP 80

Toilets



Air intake plenum
(6+1 spigots)

Or

PAP
Air intake D150

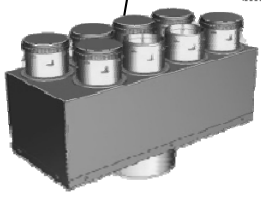
Or

PAF 150
Circular Air intake wall hoods

Or

PAST
Air intake roof D150

Living/sitting room
&
Bedrooms



4 or 8 spigots distributor

DIAGRAM OF STANDARD ASSEMBLY TYPE “DISTRIBUTION”

Outlet roof caps
CT 150

BDOP 125

Kitchen

Living/
sitting room

BDOP 125

BDOP D80
+
RD80

Toilets

Bedrooms

BAR

BDOP D80
+
RD80

Or

PAP
Air intake D150mm

Or

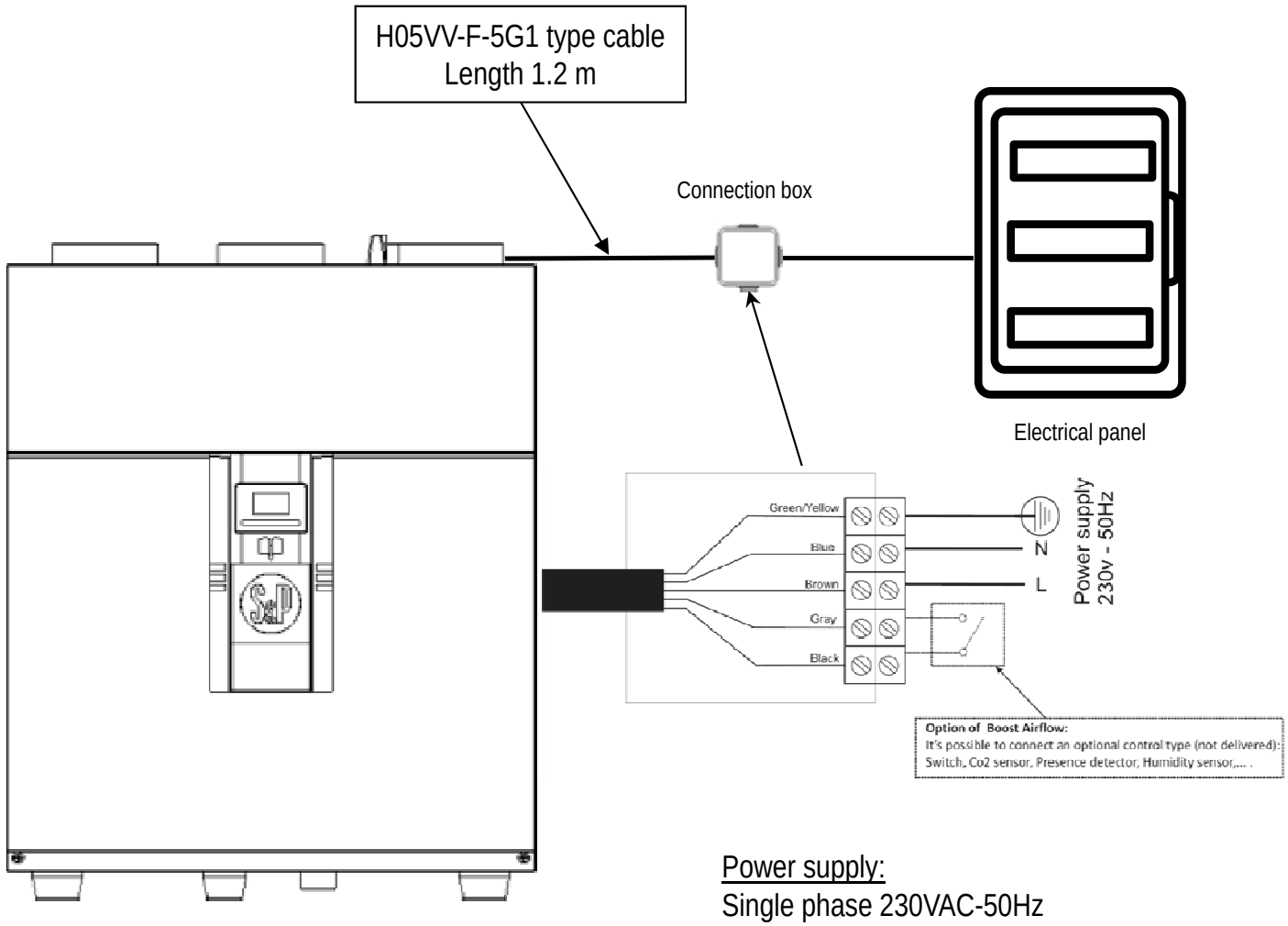
PAF 150
Circular Air intake D150mm

Or

PAST
Air intake roof hoods D150mm

2.5 Characteristics and electrical connections

Connect the supplied cable to the mains, using a hermetic connection box.



Power supply:
Single phase 230VAC-50Hz
Electrical protection:
3 A
Maximum power:
230 Watts
Max. ambient temperature:
50º C
Max. temperature of flows:
45º C

Do not start the central until all the ducts are all completely fitted (Air inlet, retaining grille or roof outlet, supply and extraction outlets, ducts and filters fitted)

When started, the central IDEO automatically adapts to the specific characteristics of each installation. If any component is missing or badly fitted, normal operation may be impaired.

.2.3 Controlling the IDEO 325 Ecowatt

The IDEO 325 Ecowatt can be controlled from:

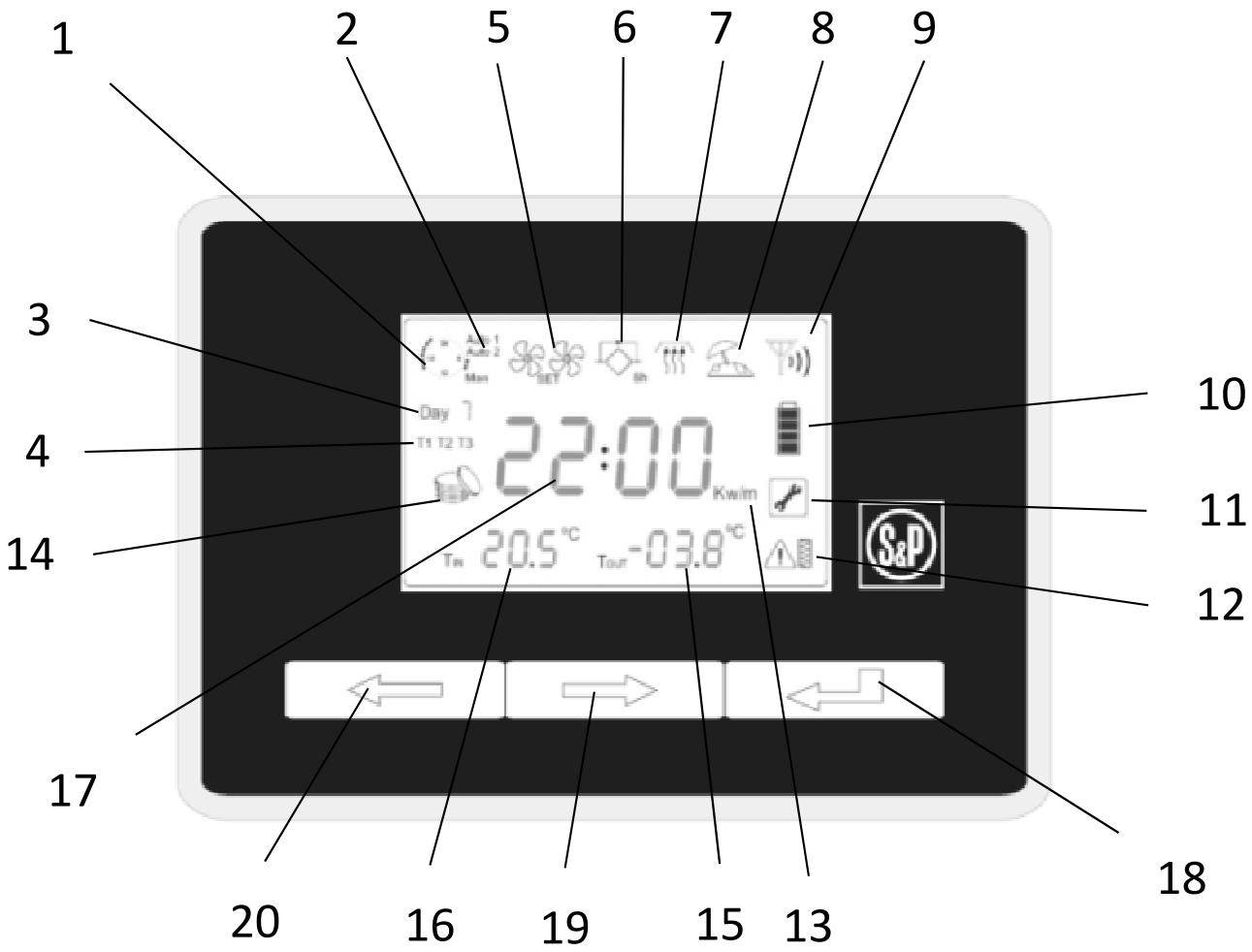
• A button that enables the boost flow for the kitchen to be timed in ½-hour steps.

Service life with normal usage (average 3 times a day) is estimated to be about 3 years. For each operation, a red signal will light up for a few seconds to indicate battery life.
The button uses one CR2032 type battery.

• The programming module is located on the front of the machine. This remote control can also be located on a wall or placed on table or other furniture.

The remote control module is in permanent communication with the IDEO central unit . Service life with normal use (consultation by the user 5 times a day on average) is estimated at about 3 years. Battery status can be viewed directly on the screen (Reference 10). The module uses two AA – 1.5 V – LR6 batteries.

2.2.a . Description of the programming module:



1 – Adjustment mode using the clock
2 – Programming mode (Automatic 1 – Automatic 2 – Manual)
3 – Day of the week
4 – Programming period
5 – Ventilation speed (small or large flow)
6 – By-pass
7 – Defrost mode
8 – Absence mode
9 – Transmission/reception level
10 – Battery level
11 – Default mode
12 – Change filter
13 – Instant energy saving
14 – Energy saving in KW per month
15 – Outdoor temperature in degrees centigrade (in the fresh air inlet)
16 – Indoor temperature in degrees centigrade (in the module)
17– Value display (Hour, flow, kilowatts…)
18 – Validation key
19 – Move right key
20 – Move left key

2.2.b . Functions of the programming module: (1)

- On/Off mode:
  If you decide to use the product with the On/Off mode you must first adjust it.
  Before activating the programming module with the batteries, open the cover and put the dipswitch on the position 1.
  To switch off the Ideo navigate with the keys 19 or 20 to see “ON”. Validate with the key 18, the "ON" will flash. With the keys 19 or 20 put on "Off" and validate with the key 18.

- Adjustment using the clock:

  Navigate with keys 19 or 20 to pictogram 1 showing a clock.
  Select with key 18. The pictogram will flash. Validate with key 18.
  Adjust the desired hour using keys 19 and 20.
  Validate with key 18. Pictogram 3 (day) will flash. Validate with key 18.
  Adjust the day, knowing that the succession can be destined from 1 to 7 on any day.

- Airflow adjustment (From 90 m^3/h to 325 m^3/h): (5)
  Minimum airflow:

  Navigate with keys 19 or 20 to pictogram 4 showing flows.
  Select with key 18. The pictogram of the first fan will flash. Validate with key 18.
  Adjust the minimum desired airflow using keys 19 and 20 in 5 m^3/h steps, according to the configuration of your house (in compliance with the table).

  Maximum airflow:

  Validate with key 18. The pictogram with two fans will flash. Validate with key 18.
  Adjust the maximum desired airflow using keys 19 and 20 in 5 m^3/h steps, according to the configuration of your house (following the table show below).
  Validate with key 18.

- Programming module options (2):

  There are two pre-established programming modes and one user-chosen mode. The modes are to past to the minimum at the maximum airflow.
  To access the desired mode:
  Navigate with keys 19 or 20 to Auto 1, Auto 2 or Manu pictogram . (Automatic 1, Automatic 2 or Manual)
  Select with key 18. Select On/Off using keys 19 or 20. Validate the chosen programming with key 18.

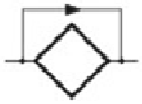
  - Auto 1:
  Working week with two meals per day, three in the weekend, but starting breakfast two hours later.

Day	T1		T2		T3	
	Start	Finish	Start	Finish	Start	Finish
Monday	6:30	7:30	-	-	19:30	20:30
Tuesday	6:30	7:30	-	-	19:30	20:30
Wednesday	6:30	7:30	-	-	19:30	20:30
Thursday	6:30	7:30	-	-	19:30	20:30
Friday	6:30	7:30	-	-	19:30	20:30
Saturday	8:30	9:30	12:00	13:00	19:30	20:30
Sunday	8:30	9:30	12:00	13:00	19:30	20:30

- Auto 2:
Working week with three meals per day and the weekend, starting breakfast two hours later.

Day	T1		T2		T3	
	Start	Finish	Start	Finish	Start	Finish
Monday	6:30	7:30	12:00	13:00	19:30	20:30
Tuesday	6:30	7:30	12:00	13:00	19:30	20:30
Wednesday	6:30	7:30	12:00	13:00	19:30	20:30
Thursday	6:30	7:30	12:00	13:00	19:30	20:30
Friday	6:30	7:30	12:00	13:00	19:30	20:30
Saturday	8:30	9:30	12:00	13:00	19:30	20:30
Sunday	8:30	9:30	12:00	13:00	19:30	20:30

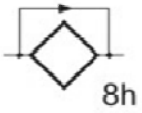
- Manu:
This mode enables the user to choose all the possible programming modes, limited to three programmes per day (T1-T2-T3).
Once this mode has been selected, adjust your programming determining the day (Day 1 to Day 7) and the number of times it blows at maximum power per day (from 0 to 3).
All movements and changes are done using keys 19 and 20, and the validation with key18.
<u>For operation using only «Boost cuisine». Simply validate the Manu mode (without carrying out hour adjustments).</u>



- Activating the By-pass (6):
The by-pass works automatically, with this conditions:

- Indoor temperature > Outdoor temperature and Indoor temperature > 24ºC

During the operation of the by-pass the icon is displayed
It's possible to adjust a specific free-cooling airflow (see below)



- Manual By-pass:
If you wish, you can force the by-pass manually for 1 to 24 hours (factory preset 8 hours) and adjust a specific free-cooling airflow.
Navigate with keys 19 and 20 to pictogram 6 showing the By-pass.
Select with key 18. Select ON using keys 19 or 20. Validate with key 18. Adjust the airflow using keys 19 and 20. Select with key 18. You can adjust the timer of by-pass with keys 19 and 20 and select with the 18.
You can disable the forced by-pass mode at any time. To do this, navigate with keys 19 or 20 to pictogram 6 showing the By-pass.
Select with key 18. Select OFF using keys 19 or 20. Validate with key 18.

- Activating the absence mode (8):
In case of a prolonged absence, you have the possibility to diminish the fresh air flow. To do this, navigate with keys 19 or 20 to pictogram 7 showing absence mode.
Select with key 18. The pictogram will flash. Validate with key 18.

- Viewing savings (14):

The IDEO-HR enables you to view monthly savings from heat recovery in kilowatts at any time.

Press key 17 continuously to view savings.

- Remote control transmission/reception level (9):

The remote control communicates permanently with the IDEO 325 Ecowatt. The transmission/reception level will enable you to know the quality of this signal.
If this is zero, you have the possibility of changing to a more powerful module.
Transmission level with a standard antenna: 150 metres in an open space
Transmission level with an optional antenna: 200 metres in an open space

- Temperature readings (15 and 16):

Temperatures Tin and Tout indicate the temperatures measured in:

- Tin: Temperature on the remote control.
- Tout: Temperature into the outdoor fresh air inlet

- Conditions for the filter icon to be displayed (12):

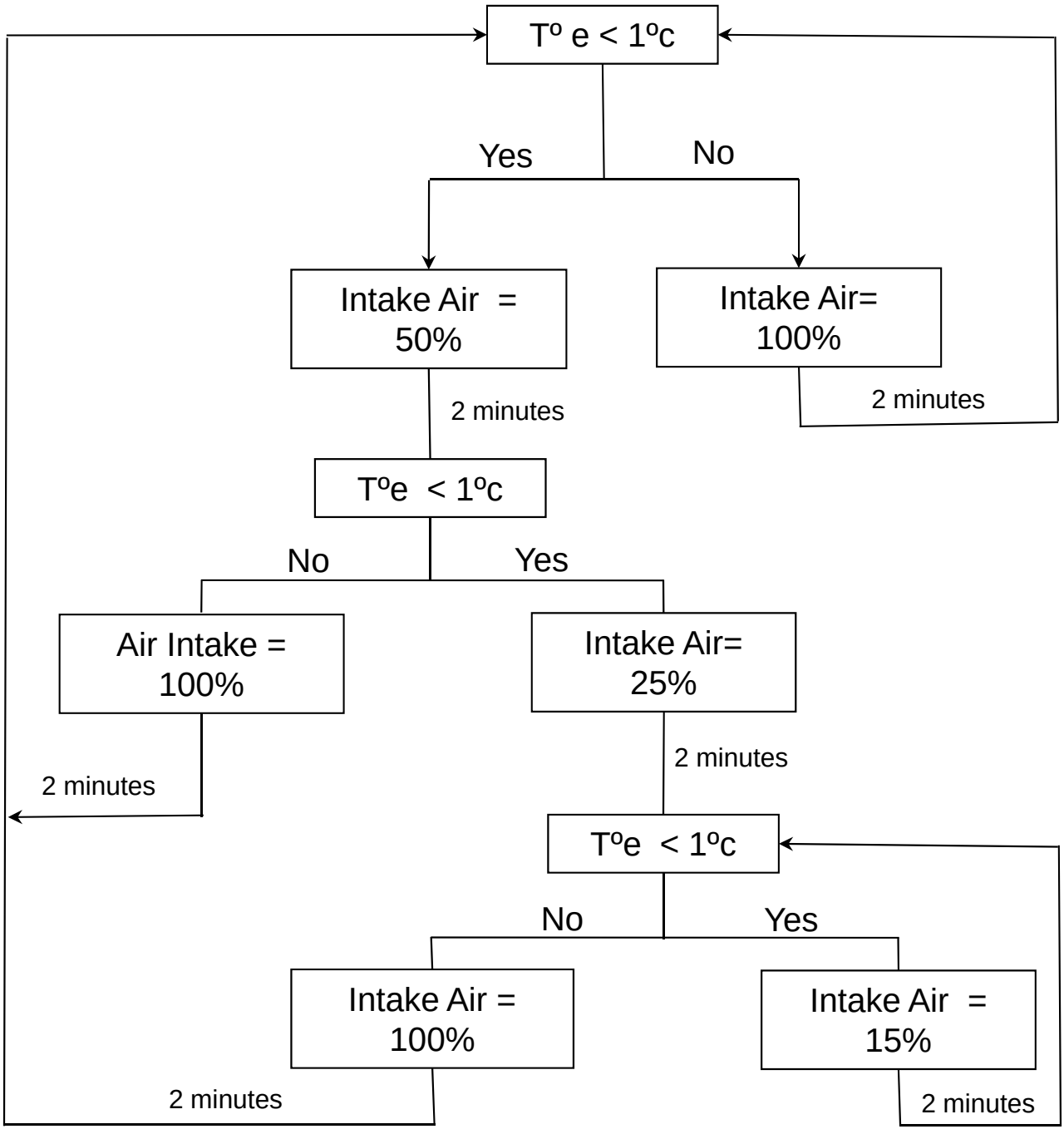
This icon will be displayed when one or several filters are soiled and it is necessary to clean or replace them.

- ✓ F1 = Blowing filters
- ✓ F 2= Extraction filters

The time it takes for the filter to become soiled can be highly variable according to the conditions of use and where the house is located (level of outdoor pollution depending on whether it is an industrial area, near roads or motorways, forest or agricultural areas).
The frequency generally varies from 6 to 12 months.

Conditions under which the malfunction icon is displayed (11):
This icon is displayed when one of the components is out of service (motor, probe, sensor...). Or if the IDEO detects malfunction in the installation (leakage, blockage…).

- Conditions under which the automatic defrosting icon is displayed (7):
  The IDEO has an automatic defrosting system offering good and economic performance.
  This system is automatically activated when the outside temperature from the fresh air intake is 1º C or lower.



Tºe = Temperature on the extraction after the heat exchanger

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S&P